U/M Stats

Data for: April, 2017 Date of report: 5/17/17

Overall Summary, April, 2017

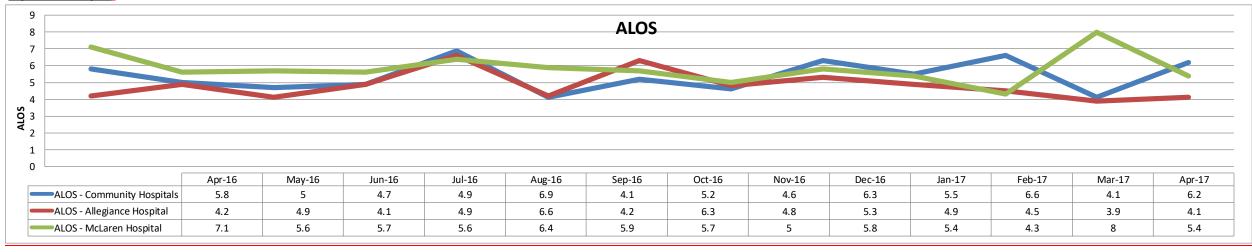
Category	April	Average
IP Days	615	578
ER Runs	318	328
Outpatient Referrals	1029	1058
Outpatient Procedures	770	863
Days From Referral to Biopsy	23	36
WURE Active Patients	248	260
Total Active Oncology Patients	151	160
CHOICES Patients	154	155

Inpatient and ER Utilization April, 2017:

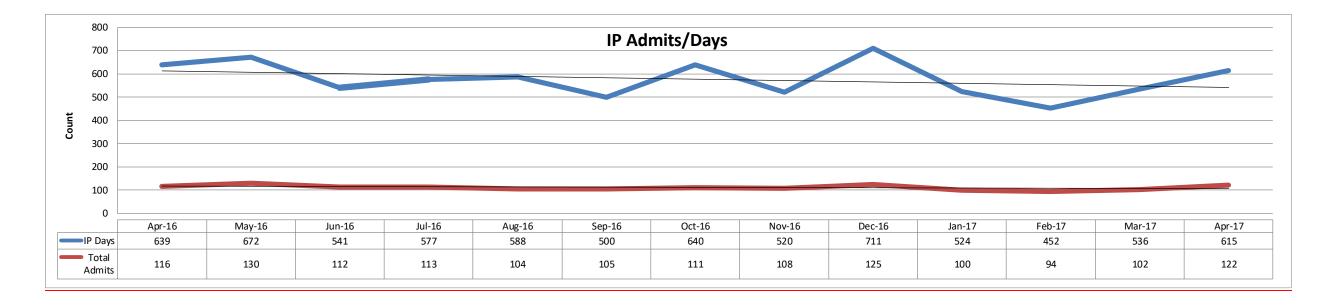
IP Days: (total hospital days):	615 (536 in March)
Allegiance Secure Unit Days	124 (137 in March)
Allegiance Hospital Days	204 (173 in March)
Allegiance Total Admits	46 (44 in March)
McLaren Secure Unit Days	230 (213 in March)
McLaren Hospital Days	231 (256 in March)
McLaren Total Admits	35 (31 in March)
Community Hospital Total Admits	24 (27 in March)
Community Hospital Days	180 (107 in March)
Total IP Admits:	122 (102 in March)
ALOS (Allegiance Hospital)	4.1 (3.9 in March)
ALOS (McLaren Hospital)	5.4 (8.0 in March)
ALOS (All Community Hospitals)	6.2 (4.1 in March)
ALOS (All Hospitals)	5.2 (5.3 in March)
Emergency Room Runs	
Total ER Runs	318 (348 in March)

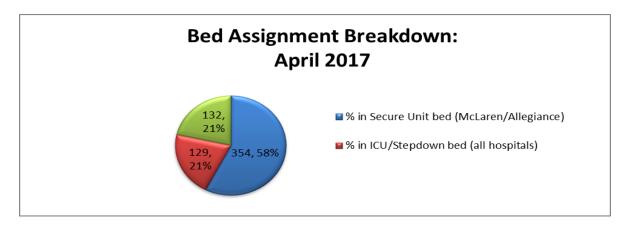


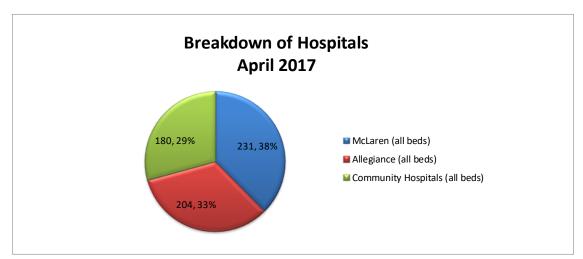
Inpatient Graphs:

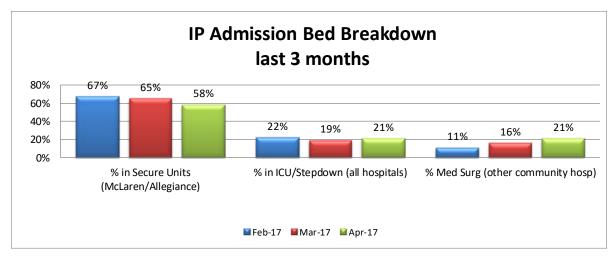


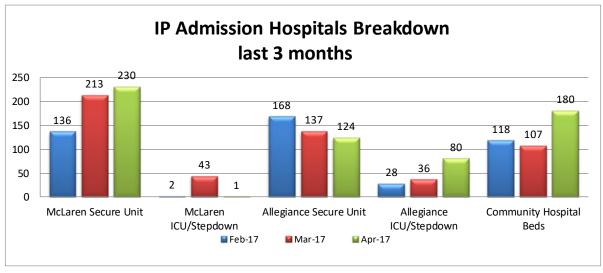


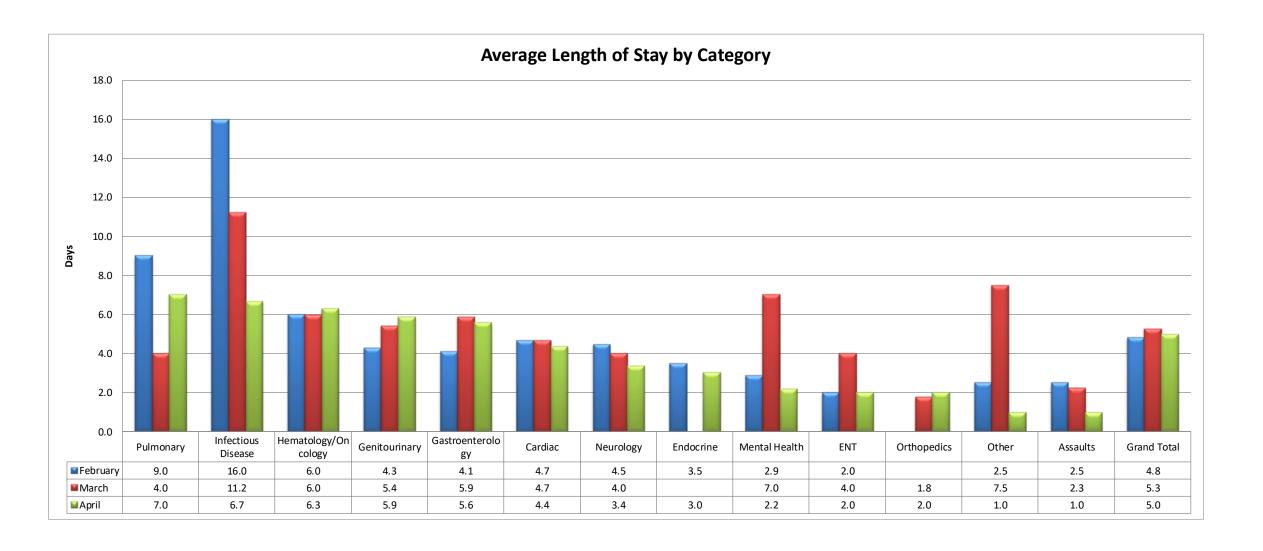




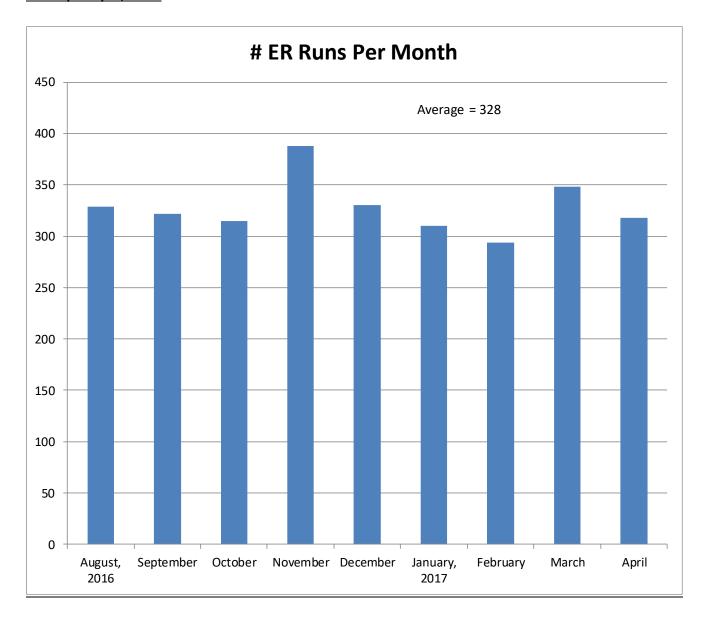


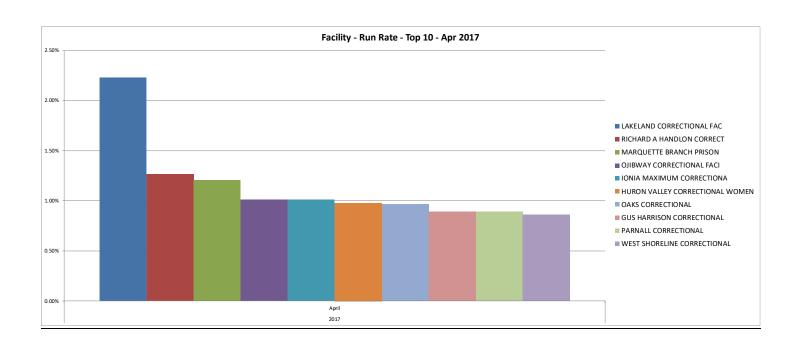


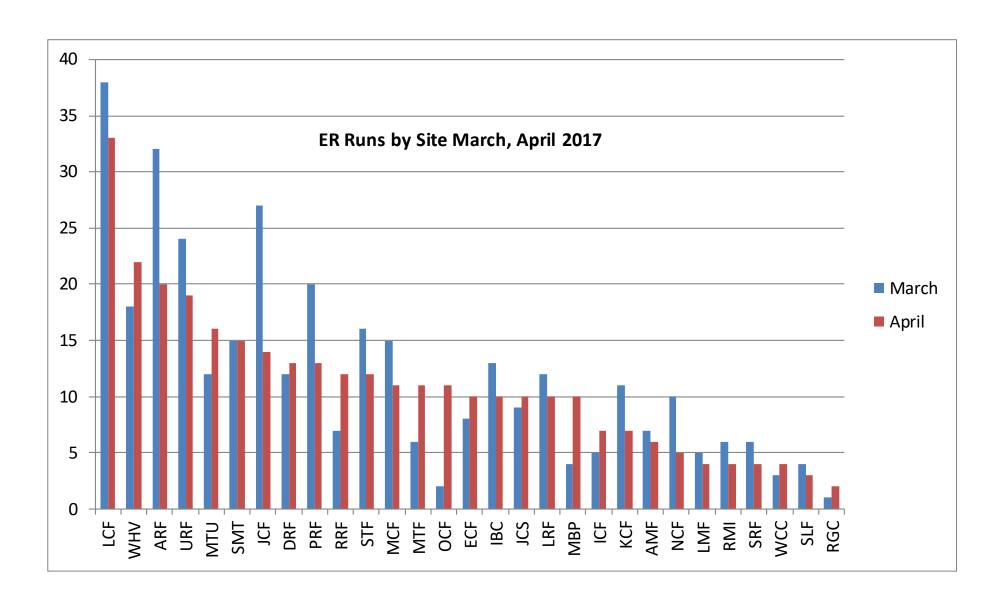




ER Graphs April, 2017:

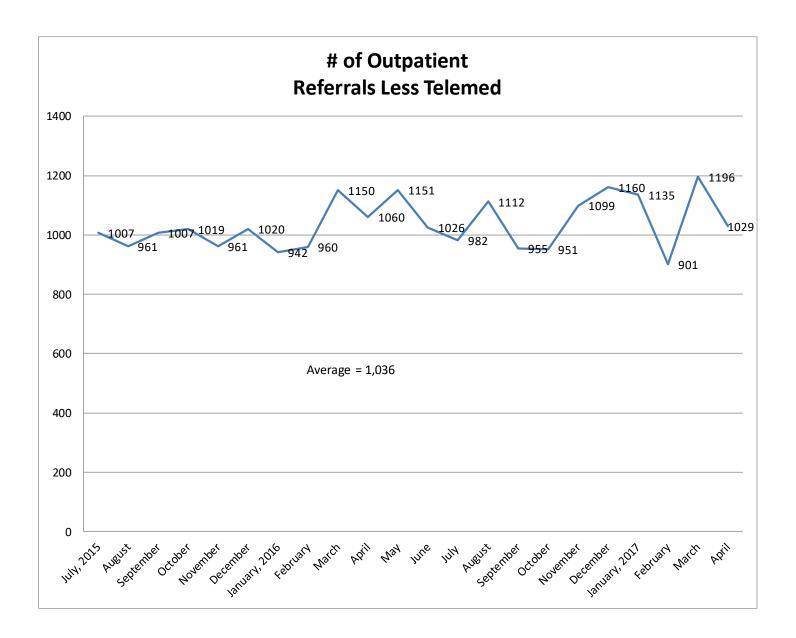


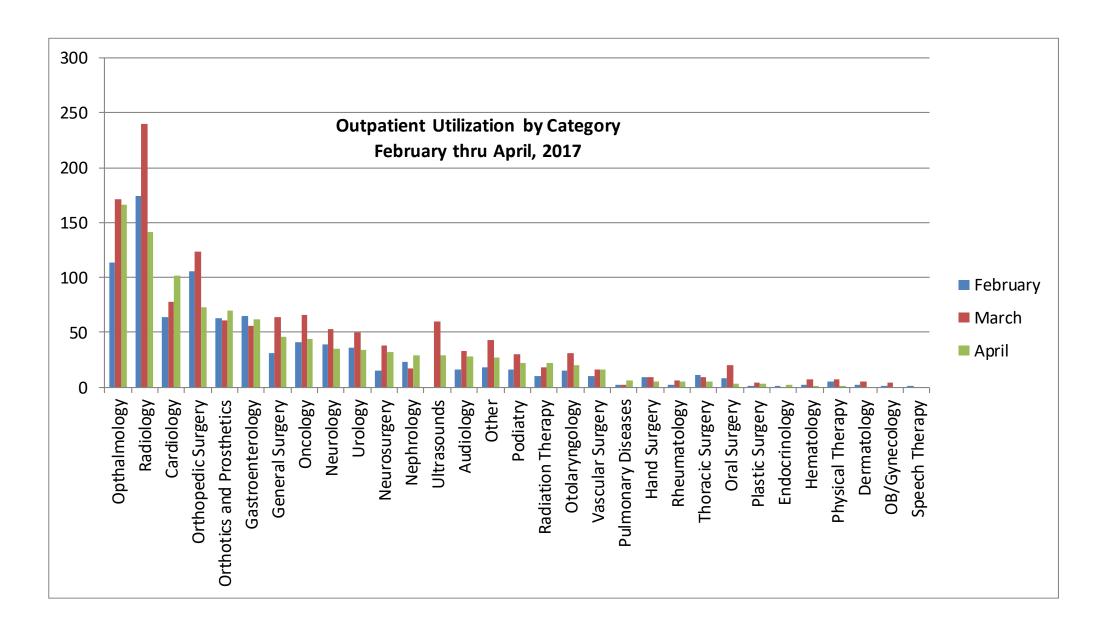


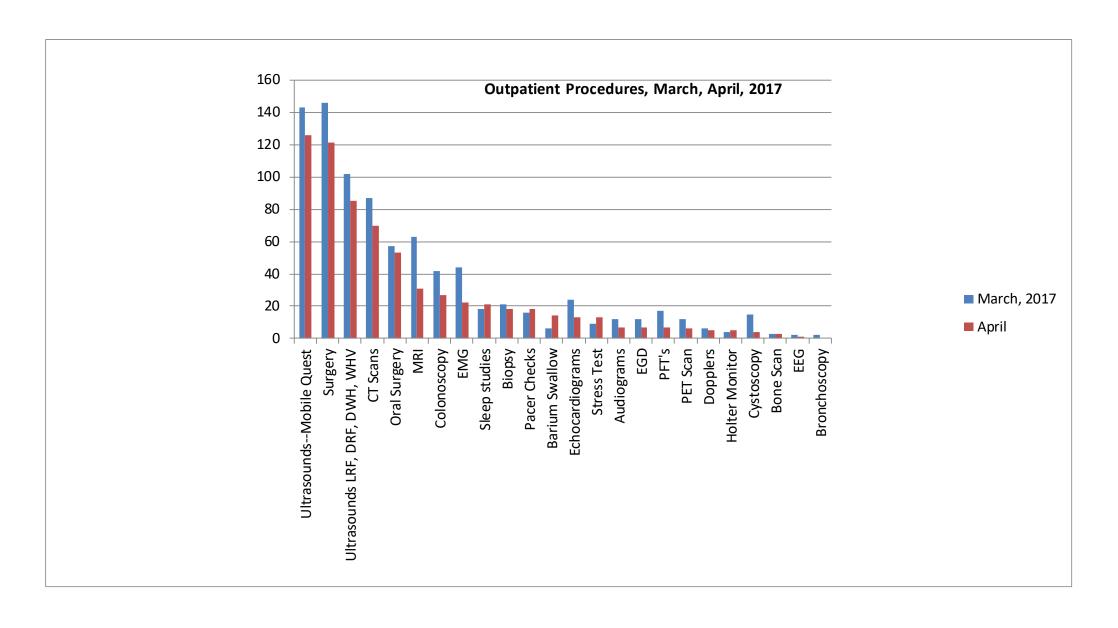


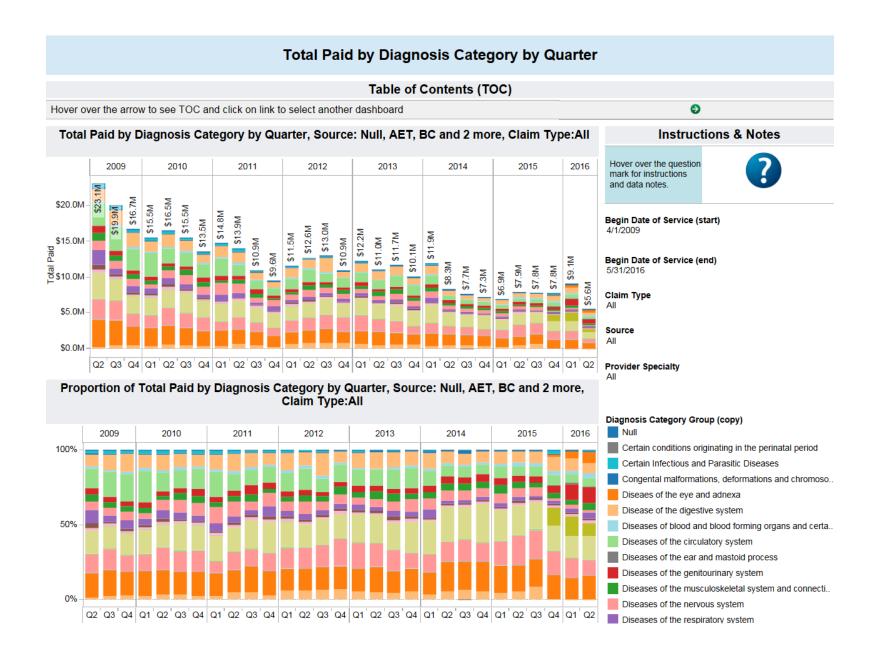
Outpatient Utilization April, 2017:

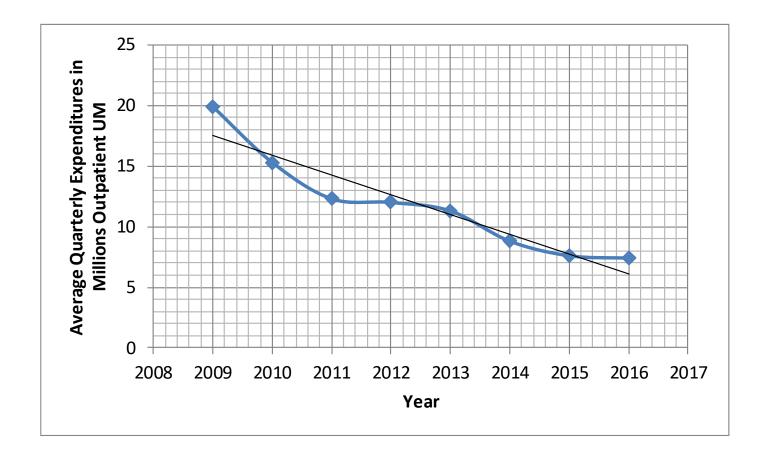
Offsite Visits (new consultations)	1029 (1196 March)
Number ATP's:	203 (16%)
Telemed Total	140
Infectious Disease Team Telemed	91
Nephrology Telemed	27
Oncology Telemed	22
On Site Physical Therapy	73
On-Site Ultrasounds	85
Procedures	770



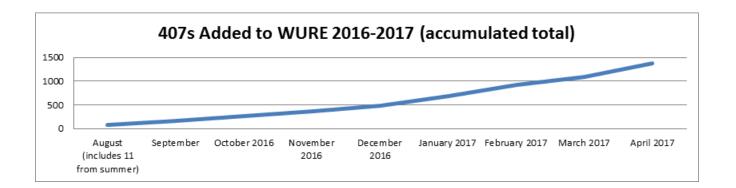


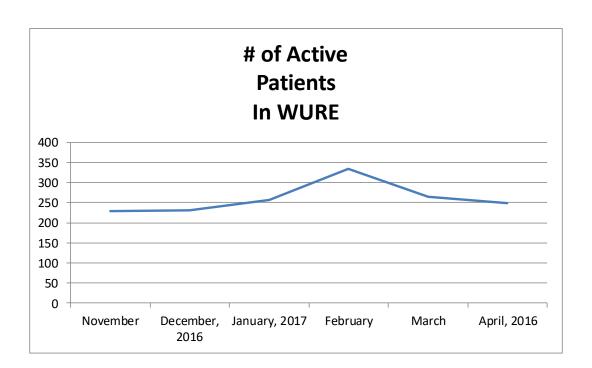


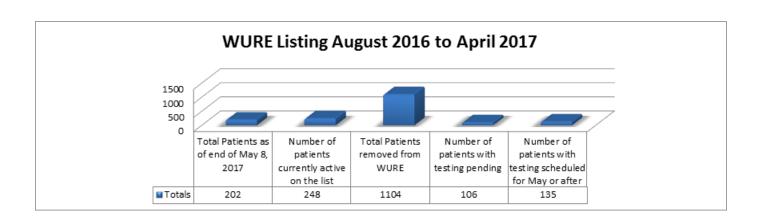


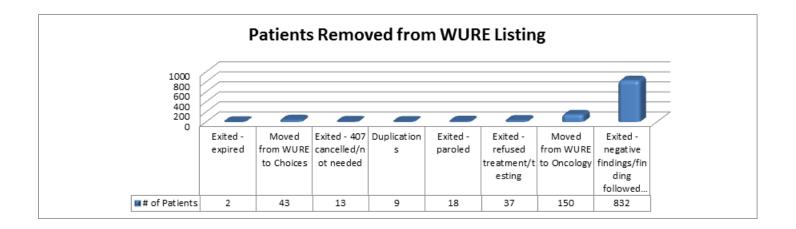


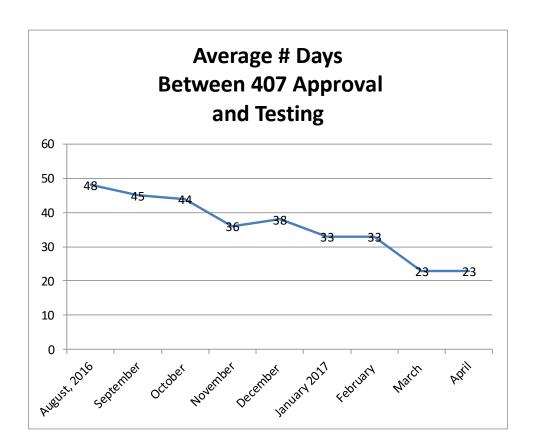
WURE Program April, 2017:





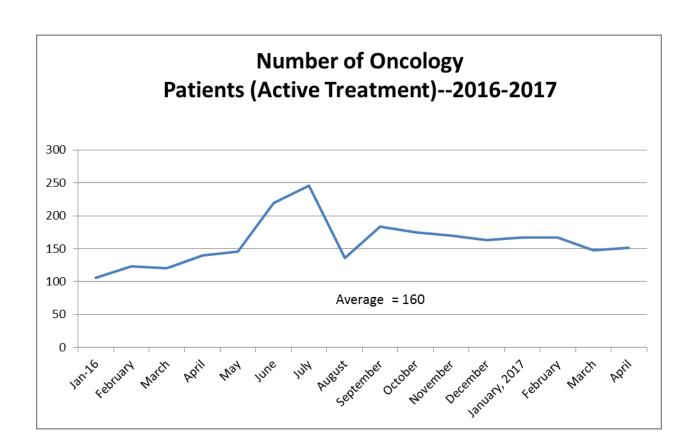


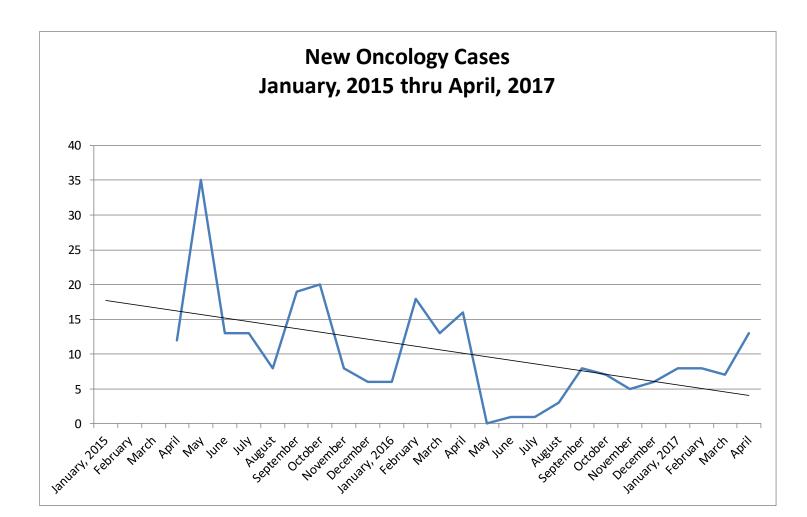


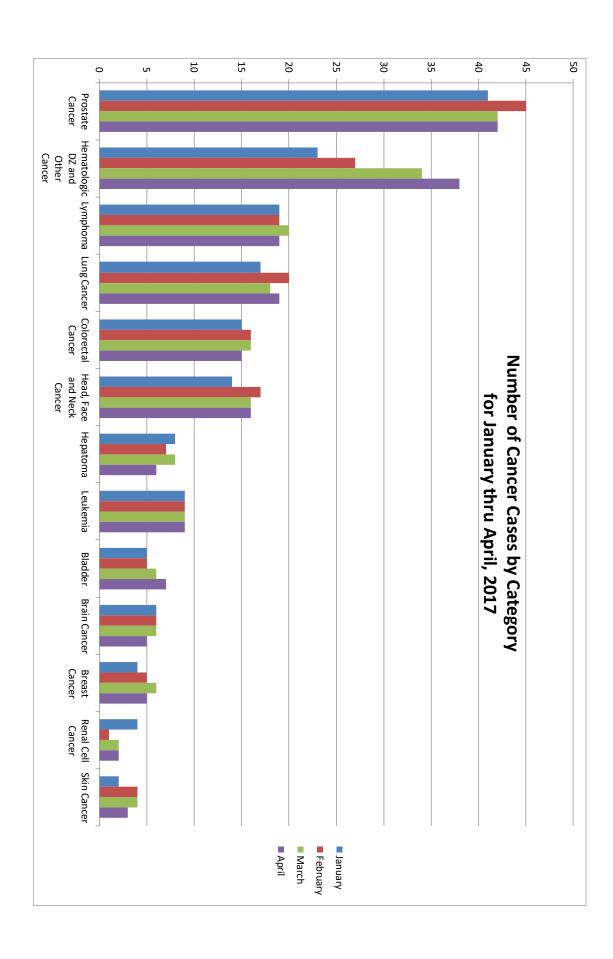


Oncology April, 2017:

Total Active Oncology Cases	151 (147 in March)	Peak month July, 2016 at 246 cases	
(including rad/onc):	147 less rad/onc		
Prostate Cases (from the	40 (39 in March)	Accounts for 26.5% of the total	
total onc cases):		oncology cases.	
Rad Onc Cases:	4 (7 in March)		
Rad Onc for Prostate:	5 (4 in March)	Accounts for 3.3% of the total	
		oncology cases.	
No. patients treated: ALLEGIANCE	38 (39 in March)	25.2% of total oncology cases.	
No. patients treated: MCLAREN	29 (29 in March, same both months)	19.2% of total oncology cases.	
No. patients: OTHER (U of M,	31 (29 in March)	20.5% of total oncology cases.	
Karmanos, etc.)			
No. patients treated:	35 (35 in March, same both months)	23.2% of total oncology cases.	
Dr. Kosierowski			
No. patients treated: DWHOC	2		
No. patients seen at DWH	15 (17 in March)	9.9% of total oncology cases	
ONC Clinic			
-	OTHER INFO for this month		
New Patients	13 (7 in March)		
No. of Deaths	9 (4 in March)		
No. Paroled	4 (7 in March)		
Completed treatment	3		

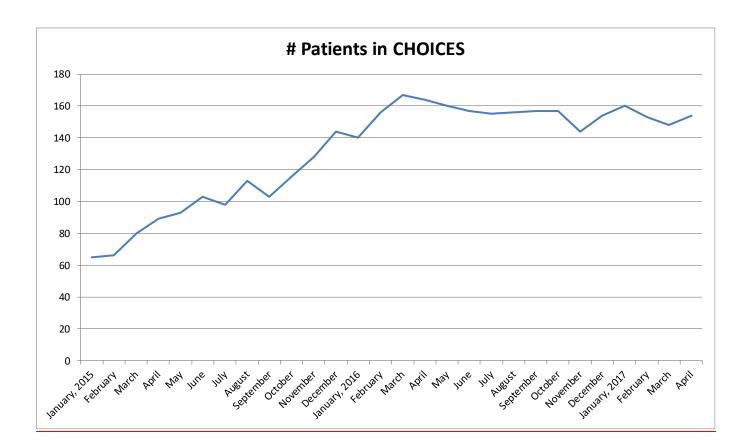






CHOICES Stats April, 2017

New Admissions (signed consent):	21 (16 March)
Total CHOICES patients:	154 (148 March)
Deaths:	7 (3 in March)
Paroled/Commutation:	1 (9 in March)
Dismissed from CHOICES due to improvement in health:	3



Corizon UM Stats/MH Stats Narrative Summary May 17, 2017 (April Contract Report)

Overall Summary

April, 2017 was a below average month in all categories of utilization except for Inpatient days. The number of ER Runs, Outpatient Referrals, Outpatient Procedures, Total Active Oncology Patients and CHOICES Patients were below their respective averages. In the WURE Cancer Patient Work-Up Program the number of days from referral to biopsy declined from a high of 48 to 23. It has remained at 23 days for the two past months. The number of WURE Patients is expected to decline as we believe the majority of patients requiring surveillance have been captured and exited the program into cancer treatment or back to routine CCC. However, this may change as Impact Pro is launched in June and is expected to capture additional patients.

Inpatient

Inpatient total hospital days increased from 536 days in March to 615 in April. The average for the past 15 months is 578 days so April was above average by 37 days. The Average Length of Stay (ALOS) for April was 5.0 vs. 5.3 days in March. The overall number of inpatient admissions for April was 122 vs. 102 for March. The average number of admissions per month for 2016 was 119 vs. 109 to date in 2017. The peak months for 2016 were March and May each at 130 total admits. However, December was the "sickest" month with a record number of hospital days at 711.

The category with the highest ALOS in April was Pulmonary at 7.0 days. There were 3 cases in this category with ALOS> 5 days. One admission (816361) was for 31 days. He was admitted to the U of M for multiple acute problems including respiratory failure, sepsis and DKA secondary to influenza pneumonia. Another patient in this category (594374) was admitted due to MRSA pneumonia. This patient is immunocompromised as a consequence of cystic fibrosis. He had a liver transplant as a child. The second highest category in April was Infectious Disease at a 6.7 ALOS. There was only one patient (391187) with a stay greater than 5 days. This patient had a 13 day stay due to osteomyelitis. He has diabetes and severe peripheral vascular disease and had been in treatment for a foot ulcer. He sustained an injury to his toe which subsequently resulted in osteomyelitis of his calcaneous. This patient required a below the knee amputation. He is currently at DWH and is being fitted with a prosthesis.

The third category in terms of ALOS is Hematology/Oncology with 10 admissions of >5 days. There were three high profile cases at 19, 17 and 15 days respectively. Patient 670211 expired from complications and metastases from penile cancer. The patient was initially diagnosed in 2014 and had been in treatment since but ultimately succumbed to the disease. His hospital course was complicated by atrial fibrillation, renal failure, thrombocytopenia and neutropenia. He was immunocompromised secondary to having both HCV and HBV. The second patient (278702) presented to healthcare on 3-16-17 with abdominal pain and a fever and was sent to the ER. He was diagnosed with a ruptured appendix. Pathology diagnosed appendicular adenocarcinoma for which he is currently under treatment. He was predisposed to GI cancer secondary to ulcerative colitis. His case is further complicated by anemia, heart block, chronic heart failure, HCV and endocarditis. The final patient under Hematology/Oncology (163732) was admitted for abdominal pain on 4-1-17. He has a biliary tumor which has been determined to be unresectable and has been referred for palliative radiation treatment.

The fourth category with ALOS >5 days is Genitourinary at 5.9 days. There were six cases that were admitted for >5 days with one patient admitted for 22days (101524). This patient has ESRD (secondary to diabetes), dialysis dependent and was admitted for sepsis as a complication of his disease. The final category with an ALOC > 5 days is Gastroenterology. There were 8 cases in this category at > 5 days and three were admitted for > 10 day stays. The patient with the longest stay (227176) had been appropriately screened for colon cancer by FOBT which was positive and he was referred for colonoscopy. A 5x12 mass was detected in his colon and he underwent urgent surgical resection. A female patient (977086) was admitted for abdominal pain which turned out to be a perforated viscous. This case is particularly noteworthy because the patient initially presented with abdominal pain but had normal vital signs. The clinician however had a high index of suspicion and correctly referred the patient to the ER for an evaluation. The final patient (149992) was admitted for complications of cirrhosis (HCV) including hepatoma and renal failure.

In terms of volume the high volume categories were Hematology/Oncology at 120 days and was also first in March at 119 days. Second was GI at 95 days and this was also second in March at 94 days. Genitourinary as third at 82 days. Cardiac was third in March at 84 days but this decreased to 57 days in April.

McLaren had 35 admits in April compared to 31 in March. Only 1 patient that was admitted to McLaren was admitted outside the secure unit. There were 46 total admits to Allegiance compared to 44 in March. The main difference between April and March is the increase in Community Hospital Days at 180 for April vs. 107 in March. There were 61 days at the U of M and 29 at St. Joseph Mercy. The patient with the longest stay in April (813361) at 31 days in the Pulmonary category was at the U of M.

There were no cases in April deemed to be preventable admissions.

Emergency Room Utilization

The total number of ER runs decreased to 318 runs in April from 348 in March. The mean for the past 8 months is 324 with the peak month being November, 2016 at 388 runs. Within the top ten sites in terms of Percent ADC only half of the top ten in March are again in the top ten. These sites are: Lakeland; Handlon; WHV; Gus Harrison and Parnall. Five of the top ten sites in April were not in the top ten in March and include: Marquette, Ojibway, Ionia, Oaks and West Shoreline. Twenty-three percent of the runs are accounted for by SIB, OD or Trauma/Assaults. This is a seasonal trend but usually occurs in June/July. It may be that the early spring and increased interaction in the yards account for the increase this month. Half of the runs at MBP and the Oaks for example were for SIB and OD activity. Fifty-five percent of the runs at Ojibway were for Assaults/trauma. In contrast, only 3/33 runs at Lakeland were for trauma. Lakeland remains at number one and this is a reflection of the large number of patients there with chronic debilitating disease.

Gus Harrison's ER run rate returned to their normal range in April after having a spike in March. They had 19 runs in April compared to 30 the month before and they moved down on the top 10 list from number 3 to number 8. One of these visits was actually an urgent appointment at the DWH optometry clinic, not a true ER run. The complaints were distributed fairly evenly with SOB= 5, CP/Cardiac =4, Trauma/SIB= 4, Misc= 4, and Abd pain= 2. Overall 47% of the ER runs happened after hours. Two runs were flagged as potentially preventable. WHV had 22 runs in April compared to 18 in March, moving them from #10 to #6 on the top ten list. In all 77% of the ER runs happened outside clinic hours. There were two infirmary patients sent out to get an IV started after several unsuccessful attempts by multiple nurses. The remaining visits were for Abd pain= 5, CP= 4, Trauma= 4, Altered mental status= 3, Pregnancy related= 3, and seizure= 1. One run was potentially preventable, not including the IV starts.

Outpatient Utilization

There were 1029 referrals in April vis 1196 referrals in March. This number is less on-site visits (5 digits codes) and multiple visits. April at 1029 is slightly below the annualized average of 1058. The percentage of ATP's was 16%. The categories of outpatient referrals is consistent within the top ten except that ophthalmology overtook radiology in April. That is principally due to the large drop in radiology utilization in April vs. March. The peak in radiology utilization in March followed the peak in the WURE Program in February. This is expected as the WURE Program has been accelerating referrals in cancer work-ups. Fortunately, the number of work ups appears to be decreasing. There was also an increase in New Oncology Cases in March thru April—also likely due to the WURE Program push from February. More than 60 cases of cancer have been processed thru the WURE Program since last summer. Otherwise, the top ten usually also include Cardiology, Orthopedic Surgery, Orthotics and Prosthetics, General Surgery, Oncology, Neurology and Urology.

There were 770 Procedures in April vs. 863 in March with the top category usually being Ultrasounds and that is secondary to hepatoma surveillance in patients with Hepatitis B and C. Rounding out the top categories of utilization is surgery, CT Scans, Oral Surgery, MRI's, Colonoscopies, EMG's and sleep studies. The bulk of CT scans ordered are for patients undergoing cancer work-ups or for surveillance. MRI's and EMG's reflect the significant number of patients with degenerative disc disease and neuropathies. Echocardiograms being in the top ten is expected due to patients with Congestive Heart Failure and End Stage Cardiac Disease. That is the number one category of patients in the CHOICES Program.

The WURE Program has been a major factor in reducing the time from diagnosis to biopsy in patients undergoing cancer work-ups from 48 days to 23 days. Many of these are for colonoscopies with biopsies. To help gain perspective on this consider that the Canadian Association of Gastroenterology reports that 50% of patients in Canada wait more than 2 months for a colonoscopy and 25% wait more than 4 months. In Australia the range reported is 17 to 258 days. In the U.S. in a few places such as New York the market is flooded with an over-abundance of specialists and colonoscopies can be obtained within one week. The New York Times has published various articles on this topic and report waiting times of up to 6 to 8 months in North Carolina and Illinois. They have reported an average time of 3 months in New Orleans. This data is not easy to obtain,

obviously, health care systems aren't anxious to report on these numbers. In terms of colonoscopies however Corley et. al. (Association Between Time to Colonoscopy After a Positive Fecal Test Result and Risk of Colorectal Cancer and Cancer Stage at Diagnosis, *JAMA*. 2017;317(16):1631-1641. doi:10.1001/jama.2017.3634) report that adverse outcomes do not start to occur until a patient with a positive FOBT waits 10 or more months for the colonoscopy. Regardless, improving from 48 to 23 days from referral to biopsy is a remarkable feat, especially considering the restraints on transportation behind bars vs. in the community.

We have accessed the HMA "Tableau Program" data and reviewed utilization in terms of "Total Paid by Diagnosis Category by Quarter" from claims data. We are working to compare this data with Corizon data. Categories reviewed include all major categories of outpatient utilization. The Tableau data appears on page 10 of this report and reveals dramatic decreases in utilization since Corizon was awarded the medical contract in 2009. The cost savings in the area above the curve in the MDOC/Tableau data is in the hundreds of millions of dollars. This is also shown graphically on page 11 where we compared the Average Quarterly Expenditures in Millions of dollars in Outpatient UM. There has been over a 60% cost savings over this time period. At the same time, the number of Sentinel Events and Lawsuits has declined. Again, we still have to confirm the data swept from Tableau with our own data.

WURE Program Update

The WURE Initiative launched in spring of 2016 with a pilot program for Hepatitis C. Since spring, Corizon Health has expanded the WURE initiative to include dialysis patient tracking which launched in September, 407s related to potential cancer diagnosis which launched in August, as well as a pilot of the laboratory monitoring at ARF in October. To review, "WURE" is a program that proactively sweeps data and "captures" events before an adverse outcome. The system identifies a problem and then alerts the medical care providers of an impending event. The Hepatitis C WURE initiative continues to run successfully, ensuring increased communication regarding cases. The dialysis tracking of patients is monitoring laboratory results as well as monitoring of prescription medications. The pilot laboratory tracking at Gus Harrison is the newest expansion and data collection began in late October. The 407 tracking of potential cancer diagnosis that started in August has shown the following:

- Total number of 407s detected that have or are undergoing a work-up for suspected cancer 1352
- The current number of patients undergoing a work-up for suspected cancer 248
- Average number of days from 407 approval to test date 23 days
- The average length of time for a 407 response is 2 days
- Number of patient on listing awaiting date for testing 106 (43%)
- Number of patients with test dates pending from April and into 2017 135 (54%)
- The number of 407s that have exited the WURE listing is 1104 (82%)
 - 2 patient expired
 - o 9 were duplicate reports and removed
 - 43 patients moved to the CHOICES program
 - o 13 exited due to 407 cancellation need for testing no longer needed
 - 18 patients paroled
 - o 37 refused treatment/testing
 - 150 patients moved from WURE to Oncology (1 is also CHOICES)
 - 832 patients had negative findings or are followed on a new 407

Oncology

The number of Active Oncology Patients reached a peak for 2016 to date in July with 246 patients in active treatment. There were 151 cases in April vs. 147 cases in March. The mean from January, 2016 thru the present is 161 patients and this number has been steady since September, 2016. However, there appears to be a trend of new oncology patients increasing in 2017 (page 15). This may also be explained by the WURE Patient "surge". The types of cancer (page 16) remains the same in order with prostate cancer representing the largest number of cancer cases followed by Hematologic Disease and Other Cancers, Lymphoma, Lung, Colorectal and Head Face and Neck cancers making the top 6. The number of patients with hepatomas may be decreasing. This would be a benefit expected by the increase in the number of patients with HCV being treated aggressively with Direct Acting Antivirals over the past two years.

The Oncology Program at DWH continues to grow and the first two patients were treated at DWH with chemotherapy in April.

HOSPICE (&CHOICES)

The number of patients in the CHOICES Program for April was 154 which is almost at the average of 155. decreased for the second straight month to 148 patients vs. 153 patients in February from 160 patients in January. The top 10 diagnoses in this population is consistent in order: Cardiac, COPD/Lung Disease; Head and Neck CA; End Stage Renal Disease; End Stage Liver Disease; Prostate CA; Colon CA; Lymphomas; Lung CA and Adult Failure to Thrive. Prostate Cancer is number one overall but number 6 in CHOICES. This reflects early detection and improved treatment resulting in longer and better quality of life in these patients. The overall diversity in other and rarer cancers fluctuates significantly on a monthly basis.